

**REMARKS**

Claims 1 through 10 have been canceled. Claims 11 through 16 remain in the application.

The Examiner has noted the use of trademarks in the application on pages 6 and 7.

The terms "Polywax" and "Aerosil" that have been used on page 6 of the specification have been capitalized. It is respectfully submitted that the specification is acceptable.

Claims 13 and 14 have been allowed.

Claims 11, 12, 15, and 16 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 through 4, 6, and 8 of U.S. Patent No. 6,291,026 in view of Urena (U.S. Patent No. 5,294,251). Claims 11, 12, 15, and 16 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 through 4, 6, 8, and 9 of U.S. Patent No. 6,117,495 in view of Urena (U.S. Patent No. 5,294,251). Applicant respectfully traverses both rejections.

U.S. Patent No. 6,291,026 claims a method for forming a mold-release coating on a mold surface. Claim 1, which is representative of claims 1 through 4, 6, and 8, claims the method as including providing a coating of material on the mold surface, the coating of material having a surface which is capable of accepting and retaining a release powder. Claim 1 also claims depositing the release powder onto the coating of material, the release powder embedding the coating of material upon deposition thereby forming a mold-release coating.

U.S. Patent No. 6,117,495 claims a method for forming a mold-release coating on a mold surface. Claim 1, which is representative of claims 1 through 4, 6, 8, and 9, claims the method as including providing a base coat of material on the mold surface, the base coat of material having a surface which is capable of accepting and retaining a release powder. Claim 1 also claims electrostatically depositing a release powder onto the base coat of material, the

release powder becoming at least partially embedded into the base coat of material upon deposition, thereby forming a mold-release coating.

U.S. Patent No. 5,294,251 claims a process of producing a coating composition. Claim 7, which is representative of claims 1 through 18, claims the process as including heating microcrystalline paraffin wax with a solvent substantially at room temperature and dispersing the microcrystalline wax. Claim 7 also claims the solvent consisting essentially of a mixture of an aliphatic solvent and at least one aromatic solvent to form the composition.

In contradistinction, claim 11 claims a method for forming a mold-release coating system on a mold surface. Claim 11, which is representative of claims 11, 12, 15, and 16, claims the method as including providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids. The method also includes the steps of applying the wax material onto the mold surface and permitting wax material to substantially dry after application onto the mold surface. The method further includes the steps of providing a release powder and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface.

The double-patenting doctrine precludes one person from obtaining more than one valid patent for the same invention or an obvious modification of an invention. Double patenting is concerned with attempts to claim the same or related subject matter twice. Thus, the standard for comparison for the second patent is what was *claimed* in the first patent, not what was *disclosed* in the specification of the first patent. "In general, a rejection on grounds of double patenting relies upon an analysis similar to the obviousness analysis relevant to a rejection pursuant to §§ 102(e) and 103; the key difference is that a double-patenting rejection looks solely to the claims of the prior art reference, and not to the entire disclosure of the prior art reference, as the basis for comparison. . . . A rejection for obviousness must be based on a comparison of

the invention to the entirety of the disclosure in the prior art reference, whereas an obviousness-type double-patenting rejection must be grounded on a comparison of the invention to the claims, and only the claims, of the prior art reference.” Purdue Pharma L.P. v. Boehringer Ingelheim GmbH, 98 F.Supp.2d 362, 392, 55 U.S.P.Q.2d 1168, 1190 (S.D. N.Y. 2000), *aff’d*, 237 F.3d 1359, 57 U.S.P.Q.2d 1647 (Fed. Cir. 2001).

None of the claims of the references cited, either alone or in combination with each other, render obvious the claimed invention of claims 11, 12, 15, and 16 under the judicially created doctrine of obviousness-type double patenting. Claim 1 of the ‘026 patent is claiming a method for forming a mold-release coating on a mold surface including providing a coating of material on the mold surface, the coating of material having a surface which is capable of accepting and retaining a release powder, and depositing the release powder onto the coating of material, the release powder embedding the coating of material upon deposition thereby forming a mold-release coating. Claim 1 of the ‘495 patent is claiming a mold-release coating on a mold surface including providing a base coat of material on the mold surface, the base coat of material having a surface which is capable of accepting and retaining a release powder, and electrostatically depositing a release powder onto the base coat of material, the release powder becoming at least partially embedded into the base coat of material upon deposition, thereby forming a mold-release coating. However, none of the claims of these patents claim providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, permitting wax material to substantially dry after application onto the mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface.

Claim 7 of the ‘251 patent is claiming a process of producing a coating composition including heating microcrystalline paraffin wax with a solvent substantially at room temperature and dispersing the microcrystalline wax, the solvent consisting essentially of a

mixture of an aliphatic solvent and at least one aromatic solvent to form the composition. The claims of the these references do not claim a method for forming a mold-release coating system on a mold surface including providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, applying the wax material onto the mold surface, permitting wax material to substantially dry after application onto the mold surface, providing a release powder, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface as claimed by Applicant in claim 11 of the present application in addition to the other features found in claims 12, 15, and 16.

The claims of the pending application are for a distinct and separate unobvious invention. None of the claims of the '026, '495, or '251 patents claim a wax material that includes about 7 to about 10 weight percent solids, permitting wax material to substantially dry after application onto the mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface. These limitations do not read on the steps of providing a coat of material on the mold surface, the coat of material having a surface which is capable of accepting and retaining a release powder, and the release powder becoming at least partially embedded into the coat of material upon deposition, thereby forming a mold-release coating. Contrary to the Examiner's opinion, MPEP 804 states that "[w]hen considering whether the invention defined in a claim of an application is an obvious variation of the invention defined in the claim of a patent, the disclosure of the patent may not be used as the prior art". The Examiner has failed to correct apply an obviousness-type double-patenting rejection by comparing the invention to the claims, and only the claims, of the prior art references. As a result, there is no double patenting involved and no terminal disclaimer need be filed. Therefore, it is respectfully submitted that claims 11, 12, 15, and 16 are allowable over the judicially created doctrine of obviousness-type double patenting.

Claims 11, 12, 15, and 16 were rejected under 35 U.S.C. § 103 as being unpatentable over Hanson et al. '495 in view of Urena (U.S. Patent No. 5,294,251). Applicant respectfully traverses this rejection.

U.S. Patent No. 6,117,495 to Hanson et al. discloses a method for forming a mold-release coating. One embodiment of providing the base coat of material on the mold surface includes providing a base coat of solvent base wax to the mold which substantially remains on the mold during subsequent molding operations. The base coat is generally a 0.1 to 3 mm, preferably 0.1 to 1 mm, built-up layer of solvent base wax that is always present when molding large quantities of production parts with spray wax. Periodically, such as once every ten parts, a normal application of solvent base wax is sprayed on the mold. Just before pouring each part, the release powder is electrostatically deposited on the base coat in the mold, generally 0.5 to 2 g. Hanson et al. does not disclose providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, permitting wax material to substantially dry after application onto a mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface.

U.S. Patent No. 5,294,251 to Urena discloses a microcrystalline wax coating composition. Microcrystalline paraffin waxes have been found to be particularly suitable for the coating compositions. Microcrystalline paraffin wax when dispersed in the solvent produces a film after evaporation of the solvent that is flexible and adheres well to the treated surface. The microcrystalline wax is included in the solvent system in the amount of about 1% to 30% by weight. For most applications, the microcrystalline wax is included in the amount of about 5% to 15% by weight. The coating composition can be applied to the surface of an article to be treated by brushing, spraying, dipping or flooding. It has also been found to produce an effective release coating for molds used in molding plastics, rubber, polystyrene foam concrete and molten metals,

such as bronze and aluminum. Urena does not disclose providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, permitting wax material to substantially dry after application onto a mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface.

In contradistinction, claim 11 claims the present invention as a method for forming a mold-release coating system on a mold surface including providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids. The method also includes the steps of applying the wax material onto the mold surface and permitting wax material to substantially dry after application onto the mold surface. The method further includes the steps of providing a release powder and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface.

The United States Court of Appeals for the Federal Circuit (CAFC) has stated in determining the propriety of a rejection under 35 U.S.C. § 103, it is well settled that the obviousness of an invention cannot be established by combining the teachings of the prior art absent some teaching, suggestion or incentive supporting the combination. See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 U.S.P.Q. 657 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 U.S.P.Q. 929 (Fed. Cir. 1984). The law followed by our court of review and the Board of Patent Appeals and Interferences is that “[a] prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.” In re Rinehart, 531 F.2d 1048, 1051, 189 U.S.P.Q. 143, 147 (C.C.P.A. 1976). See also In re Lalu, 747 F.2d 703, 705, 223 U.S.P.Q. 1257, 1258 (Fed. Cir. 1984) (“In determining whether a case of prima facie

obviousness exists, it is necessary to ascertain whether the prior art teachings would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification.”)

None of the references cited, either alone or in combination with each other, teach or suggest the claimed invention of claims 11, 12, 15, and 16. Specifically, Hanson et al. ‘495 merely discloses a method for forming a mold-release coating having a base coat of solvent base wax to the mold generally a 0.1 to 3 mm, and just before pouring each part, a release powder is electrostatically deposited on the base coat in the mold, generally 0.5 to 2 g. Hanson et al. ‘495 lacks providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, permitting wax material to substantially dry after application onto a mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface. Urena ‘251 merely discloses a microcrystalline wax coating composition in which microcrystalline paraffin wax when dispersed in solvent produces a film after evaporation of the solvent that is flexible and adheres well to the treated surface and the microcrystalline wax is included in the solvent system in the amount of about 1% to 30% by weight. Urena ‘251 lacks providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, permitting wax material to substantially dry after application onto a mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface. There is no suggestion or motivation for combining Hanson et al. ‘495 and Urena ‘251 together.

There is absolutely no teaching of a level of skill in the mold release art of providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, permitting wax material to substantially dry

after application onto a mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface. The Examiner may not, because he/she doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. See In re Warner, 379 F. 2d 1011, 154 U.S.P.Q. 173 (C.C.P.A. 1967). While Hanson et al. '495 teaches providing a base coat of material on the mold surface having a surface which is capable of accepting and retaining a release powder, and depositing a release powder onto the base coat of material to become at least partially embedded upon deposition forming a mold-release coating, Hanson et al. '495 does not teach or suggest a coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, permitting wax material to substantially dry after application onto a mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface. In addition, while Urena '251 teaches microcrystalline paraffin wax dispersed in a solvent, Urena '251 does not teach a coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, permitting wax material to substantially dry after application onto a mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface. Thus, none of the references teaches a level of skill in the art of a coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, permitting wax material to substantially dry after application onto a mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface.

Even if these references could be combined, neither teaches providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about

10 weight percent solids, permitting wax material to substantially dry after application onto a mold surface, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface. Applicant is not attacking the references individually, but is clearly pointing out that each reference is deficient and, if combined (although Applicant maintains that they are not combinable), the combination is deficient. The present invention sets forth a unique and non-obvious combination of a method for forming a mold-release coating system on a mold surface that uses high-solids waxes in combination with a release powder that extends the useful life of the mold-release coating system. The references, if combinable, fail to teach or suggest the combination of a method for forming a mold-release coating system on a mold surface including the steps of providing a barrier coating of a substantially liquid wax material, wherein the wax material includes about 7 to about 10 weight percent solids, applying the wax material onto the mold surface, permitting wax material to substantially dry after application onto the mold surface, providing a release powder, and applying the release powder onto the barrier coating after the wax material has been permitted to substantially dry after application onto the mold surface as claimed by Applicant.


Further, the CAFC has held that “[t]he mere fact that prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification”. In re Gordon, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). The Examiner has failed to show how the prior art suggested the desirability of modification to achieve Applicant’s invention. Thus, the Examiner has failed to establish a case of prima facie obviousness. Therefore, it is respectfully submitted that claims 11, 12, 15, and 16 are allowable over the rejection under 35 U.S.C. § 103.

Obviousness under § 103 is a legal conclusion based on factual evidence (In re Fine, 837 F.2d 1071, 1073, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988), and the subjective opinion of the Examiner as to what is or is not obvious, without evidence in support thereof, does not

suffice. Since the Examiner has not provided a sufficient factual basis, which is supportive of his/her position (see In re Warner, 379 F.2d 1011, 1017, 154 U.S.P.Q. 173, 178 (C.C.P.A. 1967), cert. denied, 389 U.S. 1057 (1968)), the rejection of claims 11, 12, 15, and 16 is improper. Therefore, it is respectfully submitted that claims 11, 12, 15, and 16 are allowable over the rejection under 35 U.S.C. § 103.

Based on the above, it is respectfully submitted that the claims are in a condition for allowance or in better form for appeal. Applicant respectfully requests reconsideration of the claims and withdrawal of the final rejection. It is respectfully requested that this Amendment be entered under 37 C.F.R. 1.116.

Respectfully submitted,

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Date: August 6, 2007

Attorney Docket No.: 1641.00005